ABSTRACT AMENDMENTS

Replace the Abstract with:

A permanent-magnet rotating machine includes a rotor having a rotor core carrying on ~~its~~ a curved outer surface multiple permanent magnets arranged in two rows along an axial direction~~ in such a manner that the~~. The permanent magnets in one row are skewed from those in the other row in a circumferential direction by a row-to-row skew angle (electrical angle) θe~~, and a~~. A stator having a ~~cylindrical~~ tubular stator core in which the rotor ~~is~~ disposed~~, the stator core being provided with~~ includes stator coils for producing a rotating magnetic field for rotating the rotor. A lower limit of the row-to-row skew angle θe ~~is set at a value~~ larger than 30 degrees (electrical angle). A ~~cogging torque~~ ratio~~, or the ratio~~ of ~~a~~ cogging torque occurring in the absence of skew to ~~a~~ cogging torque occurring when the permanent magnets are skewed, at a row-to-row skew angle of 30 degrees is calculated based on ~~the relationship between~~ the cogging torque ratio~~ and~~, the row-to-row skew angle θe, and B-H curve properties of the stator core~~, and an~~. An upper limit of the row-to-row skew angle θe is ~~set at a value~~ not larger than ~~its~~ the maximum value at which the cogging torque ratio does not exceed the calculated cogging torque ratio at 30 degrees.